## HANFORD BERYLLIUM FACILITIES

100-DR	272-S	327
1154	272-W	328
1252	272-WA	329
1713-F	MSL-5	331
1240	EDL	333
1706-KE	PSL	305-B
747-B	LSLA	303-C
2400 Stevens	303-K	334-A
6th St. Warehouse	303-J	350
	303-F	3712-N
6266	303-M	3716
202-S	306-E	3708
209-E	306-W	3706
2101-HV	304	3712-S
222-S	309	3751-A
222-T	313	3745-B
231-Z	314	3731-A
234-5Z	308	3720
241-A	311-TF	RTL-520
2703-E	318	236-Z
2707-SX	324	2736-Z
2714-W	325	338
271-B	326	PDL
272-AW		

Note: AMH does not maintain this list. For more current/updated facility information see **Hanford Beryllium Website:** http://www.hanford.gov/safety/beryllium/index.htm



### WEBSITES OF INTEREST

### Hanford Beryllium Website

http://www.hanford.gov/safety/beryllium/index.htm

### Beryllium (Rocky Flats Workers)

http://www.beryllium.org

#### National Jewish Medical Center

http://www.nationaljewish.org

#### **DOE Beryllium Website**

http://www.hss.energy.gov/healthsafety/wshp/be/

### CONTACTS FOR CURRENT HANFORD WORKERS

### Beryllium Awareness Group (BAG)

Chairperson—509-539-7995

### AdvanceMed Hanford (AMH)

Beryllium Case Manager—509-376-6000

### **CONTACTS FOR CURRENT AND FORMER WORKERS**

- Energy Employees Occupational Illness Compensation Program Act (EEOICPA)
- Thousands of workers employed in the nation's atomic weapons programs during the Cold War may be suffering from illnesses caused by their work. Recognizing this, Congress passed the EEOICPA to provide compensation and medical benefits to those who qualify.
- Hanford workers or their survivors may be eligible for \$150,000 if the worker suffered a radiation-related cancer or Chronic Beryllium Disease.

# For further information or to schedule consultation contact the local office:

- Phone: (509) 946-3333
  Fax: (509) 946-2009
  Toll Free: (888) 654-0014
- 303 Bradley Blvd., Suite 104, Richland, WA 99352
- http/www.dol.gov/esa/owcp/energy/regs/compliance/ ResourceMeetings/maps/resourcecenterHanford.htm
- hanford.center@rrohio.com

### **BUILDING TRADES NATIONAL MEDICAL**

### SCREENING PROGRAM

**Hanford Outreach Office** 

3021 W. Clearwater Ave., Suite 204, Kennewick, WA 99336

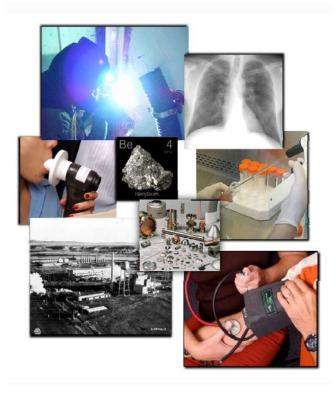
Phone: 509-783-6830 - Fax: 509-783-6831

 $Attn: Sherry\ Gosseen \\ -- Email: sgosseen \\ @zenithadmin.com\\ www.btmed.org$ 



# **BERYLLIUM**

# A Respiratory Hazard at the Hanford Site





BERYLLIUM (Be) is a metallic element that, when smelted into pure metal or combined with other metals to form alloys, has been used in many different industries for many years. At Hanford, a beryllium alloy was used to fabricate parts of fuel rods for the N-Reactor during plutonium production. Buildings in which this and other beryllium research activities took place were in the 300 Area. During fabrication and research, the release of beryllium dust, fumes and salts resulted in some workers being exposed. In buildings in which these activities took place, there is continued potential for beryllium contamination; in some cases, this has been demonstrated by surface and/or air sampling. The following information is intended to provide a brief overview of beryllium information for workers at the Hanford Site.

## SOURCES

- Origin: 93% of world supply mined from Utah
- Silver-gray metal often found in compounds with other minerals, coal, soil and volcanic ash

## **PROPERTIES**

- Six times stronger than steel, one-third the weight of aluminum, high melting point
- Resists corrosion; good neutron moderation, thermal conductivity and machine-ability

## USES

- Nuclear weapons production
- Golf clubs
- Non-sparking tools
- Bicycle frames
- Computers
- Cell phones
- Other electronics
- Many others



## HAZARDS

- Beryllium dust could still be present in facilities in which beryllium work was done
- Contaminated facilities can pose exposure risk
- Unprotected exposure (inhalation; skin) can lead to adverse health effects

## HEALTH EFFECTS

## **Beryllium Sensitization**

- An allergic-like (immune) reaction that involves certain cells in the blood
- Between one to fifteen percent (1-15%) of exposed individuals become sensitized
- Sensitized individuals are at risk of developing Chronic Beryllium Disease (CBD), a chronic and occasionally fatal lung disease
- Either sensitization or CBD can take as long as thirty years to develop

# Chronic Beryllium Disease (CBD)

 Reaction primarily in the lungs that includes inflammation, formation of areas called granulomas which can also occur in lymph nodes and skin, leading to possible lung scarring (fibrosis), reduced oxygen transfer and decrease in breathing capacity.

# Diagnosis

- Work, personal and medical history
- Blood test to look for sensitization, called BeLPT (beryllium lymphocyte proliferation test)
- Lung involvement evaluated by direct viewing inside the airways (bronchoscopy) and collecting material for evaluation (bronchial washing or lavage). Often a biopsy must be taken to establish the diagnosis.

## TREATMENT AND MANAGEMENT

- Workers found to be sensitized or who have symptoms of lung disease along with a work history significant for possible beryllium exposure are referred to specialty centers (usually National Jewish Health in Denver) for further evaluation
- Treatment plan is carried out by specialists at referral facility in conjunction with area providers
- AMH provides information, counseling, ongoing testing
- Dedicated Beryllium Program physician and case management nurse provide oversight and management assistance to those considering and/or undergoing evaluation



# ADVANCEMED HANFORD

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